The Effects of Hysteroscopic Submucosal Myoma Resection on Number of Sanitary Pads

Histereskopik Submüköz Myom Rezeksiyonunun, Menstrual Dönemde Kullanılan Ped Sayısı Üzerine Etkisi

Histereskopik Submüköz Myom Rezeksiyonunun Ped Sayısına Etkisi
Hysteroscopic Submucosal Myoma Resection Effects on Number of Sanitary Pads

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Özet

Amaç: Premenepozal dönemde submüköz myom nedeniyle menometrorajisi olan hastalarda, histereskopik submükoz myom rezeksiyonunun (HSMR), menstrual dönemde kullanılan ped sayısı üzerine etkisini araştırmak. Gereç ve Yöntem: Menoraji miktarları Pictorial Blood Assessment Chart (PBAC) yöntemi kullanılarak değerlendirilen ve submüköz myomu olan 27 kadın prospektif olarak çalışmaya alındı. Hastalara HSMR yapıldıktan sonra 6. Ayda kanama değerlerinin kullandıkları ped sayısı üzerine olan etkisi kaydedildi. Bulgular: Çalışmaya dâhil edilen hasta gurubunun yaş ortalaması 41± 5.1 idi. 27 hastanın 20'sinde (%74) bir tane, 4'ünde (%14) iki ve 3'ünde (%12) üç veya daha fazla submükoz myom mevcuttu. Çıkarılan myomların 17'si (%63) 3 cm'nin altında, 6'sı (%22) 3-5 cm arasında ve 4'ü (%15) 3cm'nin üzerinde çapa sahipti. Hastaların postoperatif 6. ayda menstruel kanamanın en yoğun olduğu günlerdeki ortalama ped sayıları preoperatif döneme göre 9.1'den 3.8'e düştüğü (p<0.05) gözlendi. Tartışma: Premenopozal dönemde menometroraji nedeniyle yapılan HSMR kadınların kullandıkları ped sayısında ve kanama günü sayısında anlamlı derecede azalmaya neden olmuştur.

Anahtar Kelimeler

Submüköz Myom; Menoraji; Histeroskopi; Hijyenik Ped

Abstract

Aim: To research the effect of hysteroscopic resection of submucosal myoma (HRSM) on the amount of pads used during the menstrual period in a premenopausal patient with menometrorrhagia caused by submucosal fibroids. Material and Method: A total of 27 women with submucosal fibroids were included in this prospective study using the Pictorial Blood Assessment Chart (PBAC) to evaluate quantity of menorrhagia. Bleeding evaluation and number of pads used by patients in the 6th month after HRSM were recorded. Results: The average age of patients included in the study was 41±5.1. Of 27 patients 20 (74%) had one. 4 (14%) had two and 3 (12%) had three or more submucosal myomas. The diameter of removed fibroids were 17 (63%) less than 3 cm, 6 (22%) between 3 and 5 cm and 4 (15%) were above 5 cm. In the postoperative 6th month on the day of heaviest menstrual bleeding average number of pads used dropped to 3.8 compared to 9.1 in the preoperative period (p<0.05). Discussion: HRSM performed due to menometrorrhagia in the premenopausal period significantly reduces the number of pads used and the number of days of bleeding.

Keywords

Submucosal Myoma; Menorrhagia; Hysteroscopy; Sanitary Pad

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Introduction

Uterine myoma is the most frequently seen tumor in women's' pelvises during the reproductive period. They may be asymptomatic, or cause menorrhagia (30%), pelvic pain or pressure symptoms (34%), infertility (2.7%) and repeated pregnancy loss (3%). About 5-10% of these tumors is submucosal and protrudes into the endometrial cavity causing pressure. They are normally discovered in cases of abnormal uterine bleeding, but may also cause other important problems such as repeated pregnancy loss and infertility. The traditional treatment approach is hysteretomic myomectomy or hysterectomy the majority of the time [1-4]. An alternative and minimally invasive treatment modality is hysteroscopic resection of submucosal myoma (HRSM), first performed by Neuwith and Amin in 1976 [5]. With the development of technology since that time the success and applicability of this procedure has increased.

There are several advantages to HRSM, especially for submucosal fibroids, compared to conventional treatment. It is a day treatment, with low cost, and low operative and pain morbidity. After the procedure in the case of a wanted pregnancy it protects the woman's chances of giving birth vaginally. To date there have been many studies on morbidity, procedure management, pregnancy results, and control of bleeding in hysteroscopic approaches to submucosal myoma [5-10]. While this data is important to evaluate the success of the procedure for the surgeon, many women are more interested in a simple and basic sign of satisfaction, the number of pads used during the menstrual period. There is limited data on this topic in the literature. Starting with this gap we researched the effect of HRSM on the daily number of pads used by premenopausal women during menstruation. We aimed to consider the success of hysteroscopic resection of myoma from the point of view of premenopausal women.

Material and Method

This prospective study included patients who attended the third-level diagnosis and treatment center at the gynecology clinic in our hospital with a diagnosis of menometrorrhagia. After necessary emergency treatment, if required, all patients gave a detailed history, had a gynecologic examination and were evaluated with a vaginal ultrasound carried out by an experienced radiologist.

After evaluation 27 patients diagnosed with submucosal myoma and who wished to protect the uterus were admitted to the study group. Ethical permission and informed consent were given by the patients while note was taken of facial expressions. Patients were evaluated in terms of age, numbers of pregnancies, children, and abortus and menopausal situation. Menorrhagia amounts were recorded using the Pictorial Blood Assessment Chart (PBAC) [11] (number of pads during heaviest part of cycle). Gynecological-pelvic examinations showed 81.4% (22/27 patients) had normal size uterus while 18.5% (5/27) had larger than normal size uterus. There was no atypical pathology observed in preoperative cervical smears of all patients. Before the hysteroscopic procedure all patients were given routine biochemical tests and internal medicine and anesthesia consultations found no obstacles to the operation.

Under spinal anesthesia, in the dorsolithotomy position, patients' cervixes were dilated with a 6 mm Hegar dilator. The operative procedure was completed using a 25.6 French Gauge walled 30o telescopic resectoscope with cutting loop. Distension media was 1.5% glycine hysteromat administered at less than 150 mmHg pressure. During the operation, given and discharged fluids were measured and deficit was calculated. Removed material was sent to pathology for examination.

Patients were observed after the operation for 24 hours in the hospital. During observation, fever, hemorrhage, vital signs and intravasation and TUR syndrome symptoms were monitored. In the sixth month after the operation the patients' hemogram values, vaginal ultrasound check, bleeding patterns and number of pads used on the heaviest day of menses were recorded on evaluation cards. Patients' preoperative and postoperative menorrhagia amounts were compared to measure the success of the procedure.

Statistical analyses were performed using the SPSS software version 10. Differences between groups (before and after six-month of treatment) were inspected by using paired t tests. A p value of <0.05 was considered significant.

Results

The average age of the patient group in the study was 41±5.1 with a range of 36 to 47 years. The average number of pregnancies was 2.82 (0-4) and average number of children was 1.72. The number of abortus was 0.24 (0-5). The general characteristics of the patients are summarized in Table 1.

Table 1. Demographic characteristics of patients

	Mean	Mean Range
Age	41.12	36-47
Gravida	2.82	0-4
Parity	1.72	0-4
Abortus	0.24	0-5

All patients were administered spinal anesthesia by an anesthesiologist. No complications requiring extra anesthesia, or linked to anesthesia, developed.

Of 27 patients 20 (74%) had one, 4 (14%) had two and 3 (12%) had three or more submucosal fibroids. Of removed fibroids, 17 (63%) were less than 3 cm, 6 (22%) were between 3-5 cm and 4 (15%) were greater than 5 cm diameter (Table 2).

Table 2. The numbers and diameter's of the myoma

Myoma number	n	Myoma diameter	n
1	20 (%74)	0-3 cm	17 (%63)
2	4 (%14)	3-5 cm	6 (%22)
>3	3 (%12)	5> cm	4 (%15)

All patients had a total myomectomy during the operation. None required a second operation.

The average duration of the operation was 25 minutes (15-60); the average amount of distension media (1.5% glycine) used was 4.9 liters (1.5-9). The average fluid deficit for the procedure was 0.5 liters (0.1-1) (Table 3).

Patients encountered no major complications during the operation or in the early postoperative period. Eight patients (29.6%) had bilateral groin pain that responded to NSAID in the postop-

Table 3. Mean operation time and Liquid range during the operation

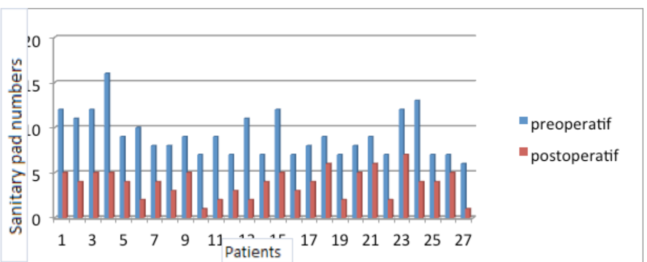
Mean operation time (minute)	25 DK (15-60)
Average amount of distension media (L)	4.9 L (1.5-9)
Liquid deficit (L)	0.5 L (0.1-1)

erative period. Patients were given a postoperative single dose of 1st generation cephalosporin. Postoperative fever and infection were not observed.

Pathologic results showed all removed material (100%) was myoma. In 8 cases (29.6%) there were additional endometrial polyps.

All patients were repeatedly called for check up in the postoperative 1st, 6th and 12th months. The number of pads used during heaviest menstrual bleeding was asked. On questioning the average number of pads used had dropped from 9.1 in the preoperative period to 3.8 in the 6th month postoperative ($p<0.05$) (fig 1). Although decreasing pad numbers, 2 patients (7.4%) reported no difference between their preoperative and postoperative symptoms. However these patients reported their menstruation days had shortened and that they were satisfied. No additional treatment was envisioned for these two patients. No patient was given GnRH analogue in the postoperative period. At the end of the first year TVUSG check-up found no recurrence of myoma.

Figure 1. Alteration of sanitary pad numbers of preoperative and postoperative period

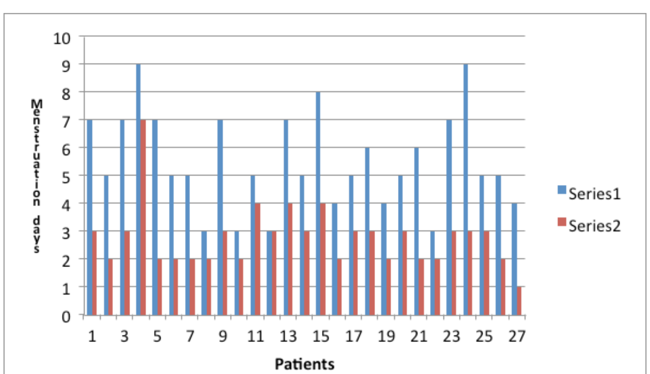


*P: <0,05

Discussion

In the premenopausal period for women with a complaint of menometrorrhagia who wish to protect their uterus HRSM caused a significant reduction in the number of hygienic pads used during the menstrual period and number of days of bleeding (fig 2).

Figure 2. Alteration of mensruation days of preoperative and postoperative period



*P: <0,05

In women with abnormal uterine bleeding in the premenopausal period 25% are diagnosed with submucosal myoma. This patient group has a rate of abnormal uterine bleeding of 70-80% and it constitutes an indication for hysteroscopic myomectomy [3,4,7,12].

Since Neuwith and Amin [5] technological hardware has developed making hysteroscopic resection a minimally invasive and standard treatment modality for submucosal myoma. Especially with fertility and protecting the organ the current ideal in choosing a surgical treatment, this brings hysteroscopic resection to the fore compared with other choices for submucosal myoma treatment [9,12].

There is no meta-analysis in the literature of HRSM done due to AUB. However studies showing HRSM has a success rate of 70-99% in controlling AUB is known. As the monitoring period lengthens, generally this success rate reduces due to recurrence of myoma and a range of dysfunctional factors [6,10] .

Indman et al. [7] performed hysteroscopic resection on 51 submucosal myoma cases with menorrhagia complaints and followed them for 5 years. Follow-up showed one patient had menorrhagia and two required hysterectomy for different reasons while 3 patients required another myomectomy. There was a significant reduction in amount of menorrhagia and dysmenorrhea.

Brooks and Loffer [13] reported a 90% success rate in 90 submucosal myoma and endometrial polyp patients who did not accept hysterectomy and myomectomy but underwent endometrial ablation and myoma resection with a resectoscope. They reported in conclusion that myoma and polyp resection combined with endometrial ablation may be an alternative to hysterectomy. Again Loffer et al. in a study of 43 submucosal myoma cases with a year follow-up found 40 (93%) reported menorrhagia under control [8].

In our study patients menstrual bleeding was queried with PBAC [11]. Procedure success was measured by detailed report of the number of pads used on the heaviest day of menstrual bleeding. There was a significant reduction in menstrual bleeding in our patients after HRSM due to submucosal myoma diagnosis. Comparing the number of pads used on the heaviest day of menstrual bleeding, 6 months postoperative the number had reduced to 3.8 compared to 9.1 preoperative and the difference was statistically significant ($p<0.05$). Only 2 (7.4%) patients reported no significant difference in the number of pads pre and postoperative. However both patients reported their menstruation duration had reduced and that they were satisfied with the operation. No further treatment was envisioned for these patients.

Current publications do not recommend use of a GnRH analogue before the HRSM procedure. In our series no case used GnRH [14]. In the literature the rate of infection after hysteroscopy is very low. However the full role of antibiotic use before and after the operation is not clear. If the cavity is fully emptied after the procedure febrile reaction should be prevented. After prophylactic antibiotic use 0.4% infection developed however Pyper et al. did not use prophylactic antibiotics and did not report any postoperative infection [15-19]. The current study did not use prophylactic antibiotics however in the postoperative period a single dose of intravenous 1st generation cephalosporin group antibiotic was administered. Monitoring found no patient in the early or late postoperative period showed signs of infection, fever or endometritis.

The successful results and low complication rates of hysteroscopic surgery proves it to be a safe and effective method. The patient can return to social life quickly, the amount of time occupying a hospital bed is reduced, the operation team and duration is efficient, postoperative care costs are low and most important the patient does not have the psychological trauma of losing an organ. In addition to these, our study shows that HRSM patients use significantly fewer pads during their menstrual period.

Competing interests

The authors declare that they have no competing interests.

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